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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/535,270

02/09/2006

Rex W. Newkirk

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EXAMINER

MI, QIUWEN

ART UNIT

PAPER NUMBER

1655

NOTIFICATION DATE

DELIVERY MODE

06/09/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

karen.forgie@blakes.com

Office Action Summary	Application No. 10/535,270	Applicant(s) NEWKIRK ET AL.	
	Examiner QIUWEN MI	Art Unit 1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's reply filed on 3/14/08 is acknowledged.

Claims Pending

Claims 1-20 are pending. Claims 1-20 are examined on the merits.

Claim Rejections –35 USC § 112, 2nd

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-20 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant argues that paragraph 7 of the specification explains that “the soluble fraction of the slurry is separated into anionic and neutral fractions...a person skilled in the relevant art would understand the meaning of “neutral” in this context, especially in the context of a sentence that includes the words “ionic” and “anionic”, and that there is good antecedent basis in the specification" (page 2, 2nd paragraph from the bottom).

It is noted that the features upon which applicant relies (the neutral fractions) are not recited in claim 1 before line 11, wherein “the neutral components” is mentioned. Although the claims are interpreted in light of the specification, limitations from the specification are not read

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into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Therefore, there is no antecedent basis for this limitation in the claim, and the rejection is maintained.

Claim Rejection 112, 1st

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 2 remains rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for a process for producing inositol from plant material using phytase enzyme, does not reasonably provide enablement for a process for producing inositol from plant material using a phytase enzyme which does not include acid phosphatase. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

Applicant argues that “claim 2 simply states that the phytase enzyme cited in claim 1 does not include acid phosphatase. This is disclosed in paragraph 12 (page 4, 1st paragraph)...it is the separate use first phytase and then acid phosphatase in two distinct reactions that is integrated into the invention (page 4, 3rd paragraph)...claim 1 clearly states that phytase is used for the first hydrolysis to inositol phosphate intermediates and then claim 8 clearly states that acid

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phosphatase is used to hydrolyze the inositol phosphate intermediates to inositol (page 4, 4th paragraph)".

It is true that the specification states that the source of phytase used preferably contains little or no acid phosphatase. However, claim 1 contains five steps, a, b, c, d, and e. Without acid phosphatase, only steps a, b, and c can be performed. Acid phosphatase is needed for steps d and e to "hydrolysing the inositol phosphates". Therefore, without including acid phosphatase, claim 2 is not enabled.

Applicant argues that "it is possible to hydrolyze inositol phosphate intermediate to inositol using non-enzymatic procedures based on high temperatures and pressures to inositol using non-enzymatic procedures" (page 4, 5th paragraph). Applicant further argues that "the Examiner states that the disclosure does not provide adequate guidance and that a large quantity of experimentation is necessary for others to practice the invention...however, the disclosure provides details of enzyme use and pH for optimal enzyme activity" (page 4, last paragraph).

Applicant admits in the record that what they provide is details of enzyme use and pH for optimal enzyme activity, and that's how steps d and e in claim 1 is operated, by using acid phosphatase, and not by some high temperature or high pressure conditions which Applicant mentions nothing about in the specification, and not in possession of.

Therefore, the rejection over claim 2 is maintained.

Claim Rejections –35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 3-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al (US 2001/0018197), in view of Rabinowitz (US 5,096,594), as evidenced by Nevalainen et al (US 5,834,286)*.

This rejection is maintained for reasons of record set forth in the Office Action mailed out on 9/14/2007. Applicants' arguments filed have been fully considered but they are not deemed to be persuasive.

Claims 1, 3-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Nevalainen et al (US 5,834,286), in view of Wong et al (US 2001/0018197), and further in view of Rabinowitz (US 5,096,594).

This rejection is maintained for reasons of record set forth in the Office Action mailed out on 9/14/2007. Applicants' arguments filed have been fully considered but they are not deemed to be persuasive.

Applicant argues that "Wong does not teach partial hydrolysis of phytate using a phytase, followed by a charged cased separation, then hydrolysis of the ionic fraction to yield neutral inositol and then a second charged based separation to purify the inositol" (page 5, 2nd paragraph); "followed by a charged based separation to yield a purify inositol" (page 5, 3rd paragraph); Nevalainen does not teach a multi-step process involving (1) hydrolysis of the vegetable starting material, followed by (2) a charge-based separation, followed by (3)

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hydrolysis of inositol phosphate intermediates in the ionic fraction and then (4) separation to yield purified inositol (page 5, last paragraph).

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

The 103 reference is based on three references. Although Wong does not teach partial hydrolysis of phytate using a phytase, Nevalainen teaches the hydrolytic end products of purified phytase enzymes are inositol di-or monophosphates, which is a partial hydrolysis. Although Rabinowitz does not teach the use of phytase, Wong teaches treating a vegetable protein material with phytase enzyme. Although Nevalainen has more than one embodiment, the disclosure regarding producing inositol from plant materials is pertinent to the instant application. With the teaching of Wong, Rabinowitz, and Nevalainen, one of the ordinary skills in the art would perform the claimed method with reasonable expectation of success.

Applicant's arguments have been fully considered but they are not persuasive, and therefore the rejections in the record are maintained.

Conclusion

No claim is allowed.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Patricia Leith/

Primary Examiner, Art Unit 1655